

UltraLite® UVCOATED UltraGuard

Abrasion resistant polycarbonate sheets

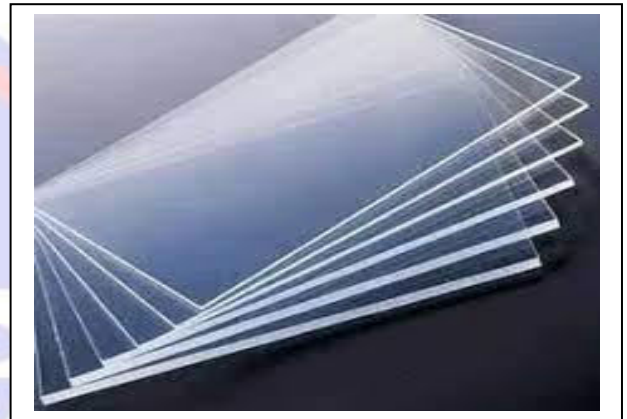
UltraLite® UVCOATED UltraGuard natural colored clear polycarbonate sheet offers excellent optical clarity with best abrasion and UV resistance, It will make an excellent candidate for safety and security glazing. It is suitable for wide range of applications. It can be used for both flat and curved glazing. These coatings offer high abrasion resistance and UV absorbent layer increased resistance to UV weathering.

Applications:

- Transparent sound barrier
- School and hospital shelter glazing
- Windows and machine guards
- Indoor and outdoor applications
- Cabin, glazing for heavy equipment and for many other typical applications.

Benefits:

- Good Abrasion resistance
- Crystal clear transparency and high optical quality
- Resistant to common chemical and UV light
- Virtually unbreakable
- Light weight
- Superior mechanical properties
- Extreme Impact strength
- Excellent weather resistance



Available Color:- Natural transparent clear

Available Width:- 1.220 mm

Available Length:- 2440 mm

Property	Test conditions	Typical Values	Unit	Test Method
Physical				
Density		1.2	kg/cm ³	ISO 1183-1
Moisture absorption (equilibrium)	23°C/50%RH(equilibrium)	0.12	%	ISO 62
Moisture absorption (saturation)	Water at 23°C(saturation)	0.30	%	ISO 62
Refractive Index		1.58	-	ISO 489
Mechanical				
Tensile Modulus	1mm/min	2350	MPa	ISO 527-1.-2
Yield stress	50mm/min	65	%	ISO 527-1.-2
Yield strain	50mm/min	6.3	%	ISO 527-1.-2
Nominal strain at break	50mm/min	>50	%	ISO 527-1.-2
Flexural Modulus	2mm/min	2350	MPa	ISO 178
Flexural strength	2mm/min	96	MPa	ISO 178
Charpy impact strength	23°C, unnotched	No break	KJ/m ²	ISO 179-1eu
Charpy impact strength	23°C, 3 mm,notched	80P	KJ/m ²	ISO 179-1eu
Izod impact strength	23°C,3.2 mm, notched	70P	KJ/m ²	ISO 180-A
Taber abrasion resistance	Δ haze after 100 cycles (500 g CS 10F)	1-4	%	ASTM D1044&ANSI Z26.1
	after 500 cycles	4-9	%	ASTM D1044&ANSI Z26.1
Thermal				
Vicat softening temperature	50N,50°C/h	148	°C	ISO 306
Thermal conductivity	23°C	0.20	W/(m.K)	ISO 8302
Coefficient of linear thermal expansion	23-55°C	0.65	10 ⁻⁴ /K	ISO 11359-1.-2
Temperature of deflection under load	1.8 Mpa	128	°C	ISO75-1.-2
Temperature of deflection under load	0.45 Mpa	141	°C	ISO75-1.-2
At 3.0 mm thickness Fire rating		V2		UL 94



Technical Data Sheet

UltraGuard Abrasion resistant Polycarbonate Sheet



Light Transmission:

Test Method according to ASTM D1003

Light transmission in %	3mm	4mm	5mm	6mm	8mm	10mm	12mm
UltraLite® UVCOATED UltraGuard Clear	88	87	87	86	85	83	82

*The mechanical properties were measured on sheets of 4mm or 3mm thickness.

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